

TAKAI et al., SN 10/623,160
Amdt. filed 02/04/2005
Reply to OA mailed 11/04/2004

Dkt. 500.30802CC4/B8136-06EX
Page 3

IN THE CLAIMS:

1.-34. (Cancel)

35. (Currently Amended) A transmission apparatus, connected to a first apparatus which is for transmitting a plurality of optical signals each having a different optical frequency and further connected to a plurality of apparatuses for receiving optical signals ~~transmitted from said first apparatus, said transmission apparatus~~ for receiving said plurality of optical signals from said first apparatus and converting an optical frequency of at least one optical signal of said plurality of optical signals and transmitting said optical signal of said optical frequency converted to at least one apparatus of said plurality of apparatuses, comprising: an optical frequency selection unit for selecting an optical signal of a first optical frequency corresponding to a second apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus; and an optical frequency conversion unit for converting said first optical frequency to a second optical frequency allotted to said second apparatus.

36. (Previously Presented) A transmission apparatus according to Claim 35, wherein said optical frequency selection unit selects an optical signal of a third optical frequency corresponding to a third apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus,

TAKAI *et al.*, SN 10/623,160
Amdt. filed 02/04/2005
Reply to OA mailed 11/04/2004

Dkt. 500.30802CC4/B8136-06EX
Page 4

and said optical frequency conversion unit converts said third optical frequency to said second optical frequency allotted to said second and third apparatuses.

37. (Previously Presented) A transmission apparatus according to Claim 35, comprising a wavelength demultiplexer for demultiplexing said plurality of optical signals which are transmitted in a multiplexed manner on an optical transmission line connecting said first apparatus and said transmission apparatus.

38. (Previously Presented) A transmission apparatus according to Claim 36, comprising a wavelength multiplexer for multiplexing a plurality of optical signals each having said second optical frequency.

39. (Previously Presented) A transmission apparatus according to Claim 35, comprising a control unit for allotting said second frequency to said second apparatus and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second apparatus.

40. (Previously Presented) A transmission apparatus according to Claim 39, wherein said control unit is notified from said first apparatus that said first optical frequency corresponds to said second apparatus, and said control unit indicates to said optical frequency selection unit that said first optical frequency corresponds to said second apparatus.

TAKAI *et al.*, SN 10/623,160
Amdt. filed 02/04/2005
Reply to OA mailed 11/04/2004

Dkt. 500.30802CC4/B8136-06EX
Page 5

41. (Previously Presented) A transmission apparatus according to Claim 36, comprising a control unit for allotting said second frequency to said second and third apparatuses and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second and third apparatuses.

42. (Previously Presented) A transmission apparatus connected to a plurality of apparatuses for transmitting optical signals and a first apparatus for receiving optical signals transmitted from said plurality of apparatuses, for converting an optical frequency of an optical signal received from at least one of said plurality of apparatuses and transmitting said optical signal of said optical frequency converted to said first apparatus, comprising:

a control unit for allotting a first optical frequency to an optical signal to be transmitted from a second apparatus among said plurality of apparatuses; and

an optical frequency conversion unit for converting said first optical frequency of said optical signal transmitted from said second apparatus to a second optical frequency corresponding to said second apparatus.

43. (Previously Presented) A transmission apparatus according to Claim 42, wherein said control unit allots said first optical frequency to each of optical signals to be transmitted from said second apparatus and a third apparatus among said plurality of apparatuses, and said optical frequency conversion unit converts said first optical frequency of an optical signal transmitted from said third apparatus to a third optical frequency corresponding to said third apparatus.

TAKAI et al., SN 10/623,160
Amdt. filed 02/04/2005
Reply to OA mailed 11/04/2004

Dkt. 500.30802CC4/B8136-06EX
Page 6

44. (Previously Presented) A transmission apparatus according to Claim 42, comprising a wavelength multiplexer for multiplexing said optical signal of said second optical frequency and said optical signal of said third optical frequency.

45. (Previously Presented) A transmission apparatus according to Claim 42, wherein said control unit is notified from said first apparatus that said second optical frequency corresponds to said second apparatus.

46. (New) A transmission apparatus, when a plurality of optical signals each having a different optical frequency transmitted from a first apparatus are relayed to a plurality of apparatuses, for converting an optical frequency of at least one of said plurality of optical signals and transmitting said at least one optical signal having an optical frequency converted to at least one of said plurality of apparatuses, comprising:

an optical frequency selection unit for selecting an optical signal of a first optical frequency corresponding to a second apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus; and

an optical frequency conversion unit for converting said first optical frequency to a second optical frequency allotted to said second apparatus.

47. (New) A transmission apparatus according to Claim 46, wherein said optical frequency selection unit selects an optical signal of a third optical frequency

TAKAI et al., SN 10/623,160
Amdt. filed 02/04/2005
Reply to OA mailed 11/04/2004

Dkt. 500.30802CC4/B8136-06EX
Page 7

corresponding to a third apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus, and said optical frequency conversion unit converts said third optical frequency to said second optical frequency allotted to said second and third apparatuses.

48. (New) A transmission apparatus according to Claim 46, comprising a wavelength demultiplexer for demultiplexing said plurality of optical signals which are transmitted in a multiplexed manner on an optical transmission line connecting said first apparatus and said transmission apparatus.

49. (New) A transmission apparatus according to Claim 47, comprising a wavelength multiplexer for multiplexing a plurality of optical signals each having said second optical frequency.

50. (New) A transmission apparatus according to Claim 46, comprising a control unit for allotting said second frequency to said second apparatus and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second apparatus.

51. (New) A transmission apparatus according to Claim 50, wherein said control unit is notified from said first apparatus that said first optical frequency corresponds to said second apparatus, and said control unit indicates to said optical

TAKAI et al., SN 10/623,160
Amdt. filed 02/04/2005
Reply to OA mailed 11/04/2004

Dkt. 500.30802CC4/B8136-06EX
Page 8

frequency selection unit that said first optical frequency corresponds to said second apparatus.

52. (New) A transmission apparatus according to Claim 47, comprising a control unit for allotting said second frequency to said second and third apparatuses and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second and third apparatuses.